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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/605,682 | 10/17/2003 | Li-Sen Chuang | 9507-US-PA | 2681 |

31561 7590 03/29/2004

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

| EXAMINER |
|---|
| DUONG, TAI V |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2871 | |

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/605,682 | CHUANG ET AL. | |
| | Examiner | Art Unit | |
| | Tai Duong | 2871 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-7, 10, 12-16, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ochiai et al.

Note Figs.1-3 and especially Fig. 4 which identically disclose the claimed method and LCD comprising first and second substrates (SUB1, SUB2); a color filter layer FIL covering the thin film transistors, the scanning lines GL and the data lines DL; common electrodes CT and pixel electrodes PX being alternatively positioned over parts of the color filter layer; a planarization or dielectric layer OC over the color filter layer; a first alignment film ORI1 over the color filter layer covering the pixel and common electrodes; a liquid crystal layer LC between the first alignment film ORI1 and a second alignment film ORI2; and a conductive structure CH1 in the color filter layer for electrically connecting the drain region with a corresponding pixel electrode. See discussions of the recited features of the remaining dependent claims in pages 5-7, paragraphs 0135 – 0178.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai et al in view Ono et al.

The only difference between the method and LCD of Figs. 1-4 of Ochiai et al and those of the instant claims is the black matrix being formed in the space between the red, green and blue filter blocks. Ono et al disclose in Fig. 1 that it was known to employ a black matrix BM (under CL) being formed in the space between the red, green and blue filter blocks (FIL(R), FIL (G)). Thus, it would have been obvious to a person of ordinary skill in the art in view of Ono et al to employ the above black matrix arrangement in the method and LCD of Ochiai et al for blocking light leakage at the space between color filters thereby improving display contrast.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai et al.

The only difference between the LCD of Figs. 1-4 of Ochiai et al and that of the instant claim is an additional dielectric layer (insulating layer) over the color filter layer. Ochiai et al disclose in Figs. 14 and 15 the use of two dielectric layers (PSV1, PSV2). Thus, it would have been obvious to a person of ordinary skill in the art to employ an additional dielectric layer (insulating layer) over the color filter layer of the LCD of Ochiai et al for making the electric field uniform over the respective pixel regions (paragraph 0251).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai et al.

The only difference between the LCD of Figs. 1-4 of Ochiai et al and that of the instant claim is the common electrodes, the pixel electrodes and the dielectric layer OC forming a plurality of pixel storage capacitors. Ochiai et al disclose in Fig. 11 the common electrodes CT overlapping the pixel electrodes PX with the dielectric layers (PSV1, PSV2) between to form a plurality of pixel storage capacitors. Thus, it would have been obvious to a person of ordinary skill in the art to employ the common electrodes, the pixel electrodes and the dielectric layer OC forming a plurality of pixel storage capacitors for simplifying the fabrication process, as compared with the case of forming an additional capacitance line CL as shown in Fig. 3.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

TOAN TON
PRIMARY EXAMINER

TVD

03/04